·U.S. Patent Application Serial No. 10/561,565 Attorney Docket No. 10191/4154 Reply to Final Office Action of September 14, 2009

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF THE CLAIMS:

- 1-11. (Canceled).
- 12. (Currently Amended) A method for triggering an occupant protection device in a vehicle, comprising:

detecting a first measured variable while simultaneously generating a corresponding first signal for indicating a necessity for triggering the occupant protection device;

detecting an acceleration value in a z direction while simultaneously generating a corresponding second signal, wherein the z direction is a vertical direction;

calculating a trigger signal for triggering the occupant protection device as a function of the first signal and the second signal, wherein a level of the occupant protection device triggering signal is reduced as a function of at least one of [[the]] <u>a</u> vertical axis acceleration signal and a vehicle model; and

triggering the occupant protection device as a function of the calculated trigger signal, wherein a deployment threshold for generating the trigger signal is elevated as a function of the acceleration in the z direction if the acceleration value in the z direction is below a threshold.

- 13. (Previously Presented) The method as recited in Claim 12, wherein the first measured variable includes at least one of an acceleration value in an x direction, an acceleration value in a y direction, and a measured variable that describes at least one of an area ahead of the vehicle and a vehicle surroundings.
- 14. (Previously Presented) The method as recited in Claim 12, further comprising: performing a first detecting of an acceleration value in at least one of an x direction and a y direction;

performing a second detecting of at least one of an area ahead of the vehicle and a vehicle surroundings;

U.S. Patent Application Serial No. 10/561,565 Attorney Docket No. 10191/4154

Reply to Final Office Action of September 14, 2009

simultaneously with at least one of the first detecting and the second detecting, simultaneously generating a third signal that is incorporated into the calculating of the trigger signal.

15. (Previously Presented) The method as recited in Claim 14, wherein:

the detecting of the first measured variable is performed by an acceleration sensor; and

the detecting of at least one of the area ahead of the vehicle and the vehicle surroundings are accomplished by one of a radar sensor, a lidar sensor, a video sensor, and an ultrasonic sensor.

16. (Previously Presented) The method as recited in Claim 12, wherein:

the occupant protection device includes at least one of an airbag, an electrically operable side window, a sunroof, a seat, and one of a reversible seat belt tensioner and a pyrotechnical seat belt tensioner, and

the airbag includes at least one of a driver airbag, a passenger airbag, a side airbag, a head airbag, a knee airbag, and a window airbag.

- 17. (Canceled).
- 18. (Previously Presented) The method as recited in Claim 12, wherein one of:
 only level peaks of the first signal are reduced as a function of the second signal, and
 the level of the first signal is reduced by a predefined value as a function of a level of
 the second signal.
- 19. (Previously Presented) The method as recited in Claim 12, further comprising: raising a trigger threshold for triggering the occupant protection device in the calculating of the trigger signal as a function of the second signal.
- 20. (Previously Presented) The method as recited in Claim 12, wherein one of a raising of a trigger threshold and a lowering of a level of the first signal is carried out in a calculating of the trigger signal as a function of one of a characteristic-velocity of the vehicle and a relative velocity of the vehicle with respect to an obstacle.
- 21. (Currently Amended) A device for triggering an occupant protection device in a vehicle, comprising:

·U.S. Patent Application Serial No. 10/561,565

Attorney Docket No. 10191/4154

Reply to Final Office Action of September 14, 2009

a first detection device for detecting a first measured variable and for simultaneously generating a corresponding first signal for indicating a necessity for triggering the occupant protection device;

a second detection device for detecting an acceleration value in a z direction and for simultaneously generating a corresponding second signal, wherein the z direction is a vertical direction;

a calculation device for calculating a trigger signal for triggering at least one occupant protection device as a function of the first signal and the second signal, wherein a level of the occupant protection device triggering signal is reduced as a function of at least one of [[the]] a vertical axis acceleration signal and a vehicle model; and

a trigger device for triggering the occupant protection device as a function of the calculated trigger signal, wherein a deployment threshold for generating the trigger signal is elevated as a function of the acceleration in the z direction if the acceleration value in the z direction is below a threshold.

22. (Previously Presented) The device as recited in Claim 21, further comprising:

a detecting device for detecting a measured variable describing at least one of an area ahead of the vehicle and a vehicle surroundings, and for detecting at least one of an acceleration value in an x direction and an acceleration value in a y direction.

23. (Currently Amended) The device as recited in Claim 21, wherein: A device for triggering an occupant protection device in a vehicle, comprising:

a first detection device for detecting a first measured variable and for simultaneously generating a corresponding first signal for indicating a necessity for triggering the occupant protection device;

a second detection device for detecting an acceleration value in a z direction and for simultaneously generating a corresponding second signal, wherein the z direction is a vertical direction;

a calculation device for calculating a trigger signal for triggering at least one occupant protection device as a function of the first signal and the second signal, wherein a level of the occupant protection device triggering signal is reduced as a function of at least one of a vertical axis acceleration signal and a vehicle model; and

U.S. Patent Application Serial No. 10/561,565
Attorney Docket No. 10191/4154
Reply to Final Office Action of September 14, 2009

a trigger device for triggering the occupant protection device as a function of the calculated trigger signal;

wherein:

a first detecting of an acceleration value in at least one of an x direction and a y direction and a second detecting of at least one of an area ahead of the vehicle and a vehicle surroundings are performed,

simultaneously with at least one of the first detecting and the second detecting, a third signal that is incorporated into the calculating of the trigger signal is simultaneously detected,

the first measured variable includes at least one of an acceleration value in an x direction, an acceleration value in a y direction, and a measured variable that describes at least one of an area ahead of the vehicle and a vehicle surroundings, and

the detecting of the first measured variable is performed by an acceleration sensor and the detecting of at least one of the area ahead of the vehicle and the vehicle surroundings are accomplished by one of a radar sensor, a lidar sensor, a video sensor, and an ultrasonic sensor.

- 24. (Previously Presented) The device as recited in Claim 23, wherein the occupant protection device includes at least one of an airbag, an electrically operable side window, a sunroof, a seat, and one of a reversible seat belt tensioner and a pyrotechnical seat belt tensioner, and the airbag includes at least one of a driver airbag, a passenger airbag, a side airbag, a head airbag, a knee airbag, and a window airbag.
- 25. (Previously Presented) The device as recited in Claim 23, wherein a trigger threshold for triggering the occupant protection device in the calculating of the trigger signal as a function of the second signal is raised, and wherein one of (i) only level peaks of the first signal are reduced as a function of the second signal, and (ii) the level of the first signal is reduced by a predefined value as a function of a level of the second signal.
- 26. (Previously Presented) The device as recited in Claim 25, wherein one of a raising of a trigger threshold and a lowering of a level of the first signal is performed in calculating the trigger signal as a function of one of a characteristic-velocity of the vehicle and a relative velocity of the vehicle with respect to an obstacle.

27. (Previously Presented) The method as recited in Claim 12, further comprising:

performing a first detecting of an acceleration value in at least one of an x direction and a y direction;

performing a second detecting of at least one of an area ahead of the vehicle and a vehicle surroundings;

simultaneously with at least one of the first detecting and the second detecting, simultaneously generating a third signal that is incorporated into the calculating of the trigger signal;

wherein the first measured variable includes at least one of an acceleration value in an x direction, an acceleration value in a y direction, and a measured variable that describes at least one of an area ahead of the vehicle and a vehicle surroundings, and

wherein the detecting of the first measured variable is performed by an acceleration sensor, and the detecting of at least one of the area ahead of the vehicle and the vehicle surroundings are accomplished by one of a radar sensor, a lidar sensor, a video sensor, and an ultrasonic sensor.

- 28. (Previously Presented) The method as recited in Claim 27, wherein the occupant protection device includes at least one of an airbag, an electrically operable side window, a sunroof, a seat, and one of a reversible seat belt tensioner and a pyrotechnical seat belt tensioner, and the airbag includes at least one of a driver airbag, a passenger airbag, a side airbag, a head airbag, a knee airbag, and a window airbag.
- 29. (Previously Presented) The method as recited in Claim 27, further comprising: raising a trigger threshold for triggering the occupant protection device in the calculating of the trigger signal as a function of the second signal;

wherein one of (i) only level peaks of the first signal are reduced as a function of the second signal, and (ii) the level of the first signal is reduced by a predefined value as a function of a level of the second signal.

30. (Previously Presented) The method as recited in Claim 29, wherein one of a raising of a trigger threshold and a lowering of a level of the first signal is performed in calculating the

U.S. Patent Application Serial No. 10/561,565
Attorney Docket No. 10191/4154
Reply to Final Office Action of September 14, 2009

trigger signal as a function of one of a characteristic-velocity of the vehicle and a relative velocity of the vehicle with respect to an obstacle.

31. (Previously Presented) A method for triggering an occupant protection device in a vehicle, comprising:

detecting a first measured variable while simultaneously generating a corresponding first signal for indicating a necessity for triggering the occupant protection device;

detecting an acceleration value in a z direction while simultaneously generating a corresponding second signal, wherein the z direction is a vertical direction;

calculating a trigger signal for triggering the occupant protection device as a function of the first signal and the second signal, wherein a level of the first signal is reduced as a function of at least one of the second signal and a vehicle model;

triggering the occupant protection device as a function of the calculated trigger signal;

detecting an acceleration value in at least one of an x direction and a y direction, and detecting at least one of an area ahead of the vehicle and a vehicle surroundings; and

simultaneously with at least one of the first detecting and the second detecting, simultaneously generating a third signal that is incorporated into the calculating of the trigger signal;

wherein the first measured variable includes at least one of an acceleration value in an x direction, an acceleration value in a y direction, and a measured variable that describes at least one of an area ahead of the vehicle and a vehicle surroundings, and

wherein the detecting of the first measured variable is performed by an acceleration sensor, and the detecting of at least one of the area ahead of the vehicle and the vehicle surroundings are accomplished by one of a radar sensor, a lidar sensor, a video sensor, and an ultrasonic sensor.